

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Previously Presented) A method of preparing autologous T-lymphocytes for re-introduction into a patient having cancer, which method comprises:

- (i) obtaining peripheral blood mononuclear cells (PBMCs) from a patient immunized with an antigen of the cancer,
- (ii) stimulating the PBMCs with the antigen of the cancer in vitro, and
- (iii) transducing the PBMCs with a retroviral vector, which (a) comprises and expresses a human interleukin-2 (IL-2) coding sequence operably linked to a retroviral promoter, (b) does not comprise an exogenously introduced gene that enables phenotypic selection, and (c) comprises a viral envelope that efficiently transduces CD8+ T-lymphocytes,

whereupon autologous T-lymphocytes are prepared for re-introduction into a patient having cancer.

2. (Original) The method of claim 1, wherein the cancer is melanoma.

3. (Original) The method of claim 2, wherein the antigen of the cancer is gp100.

4. (Previously Presented) The method of claim 3, wherein the antigen is the 209-2M peptide (SEQ ID NO: 5).

5. (Original) The method of claim 1, wherein the cancer is breast cancer.

6. (Original) The method of claim 5, wherein the antigen of the cancer is Her-2/Neu.

7. (Original) The method of claim 1, wherein the cancer is prostate cancer.

8. (Original) The method of claim 7, wherein the antigen of the cancer is prostate-specific antigen (PSA).

9. (Original) The method of claim 1, wherein the cancer is colon cancer.

10. (Original) The method of claim 9, wherein the antigen of the cancer is carcinoembryonic antigen (CEA).

11. (Previously Presented) The method of claim 1, wherein the viral envelope protein is Gibbon ape leukemia virus envelope (GALV).

12. (Previously Presented) The method of claim 1, wherein the retroviral vector further comprises and expresses a human IL-2 receptor α -chain coding sequence.

13. (Previously Presented) The method of claim 1, wherein the method further comprises introducing into the PBMCs a vector comprising and expressing a human IL-2 receptor α -chain coding sequence operably linked to a promoter.

14. (Canceled).

15. (Withdrawn) A method of treating a patient having cancer, which method comprises administering to the patient autologous T lymphocytes, which have been prepared in accordance with the method of claim 1, in an amount sufficient to treat the patient for cancer.

16. (Withdrawn) A method of treating a patient having cancer, which method comprises administering to the patient autologous T lymphocytes, which have been prepared in accordance with the method of claim 1, alone or in further combination with human IL-2 receptor α -chains, in amounts sufficient to treat the patient for cancer.

17. - 32. (Canceled).